

In the Claims

Please cancel claims 4, 5, and 7 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in a future continuation or divisional application.

Please amend claims 1, 6, 8, 9, and 29 as follows:

D1 --1. (Four times amended) A method for detecting the presence or absence of breast cancer in a non-lactating subject, comprising determining whether or not mammary gland sodium/iodide symporter (mgNIS) is expressed in breast tissue of the subject, wherein

expression of mgNIS in the breast tissue is detected using an antibody, or a fragment thereof, specific for mgNIS, and

expression of mgNIS in the breast tissue is indicative of the presence of breast cancer in the subject, and no expression of mgNIS in the breast tissue is indicative of the absence of breast cancer in the subject.--

D2 --6. (Amended) The method of Claim 1, wherein the antibody is labeled with a detectable marker.--

D3 --8. (Twice Amended) The method of claim 30, wherein the nucleic acid probe is DNA.--

--9. (Amended) The method of Claim 30, wherein the nucleic acid probe is labeled with a detectable marker.--

D4 --29. (Amended) The method of claim 30, wherein the nucleic acid probe is RNA.--

Please add new claim 30 as follows:

D5 --30. (New) A method for detecting the presence or absence of breast cancer in a non-lactating subject, comprising determining whether or not mammary gland sodium/iodide symporter (mgNIS) is expressed in breast tissue of the subject, wherein expression of mgNIS in the breast tissue is detected *in vitro* using at least one nucleic acid probe that specifically hybridizes to nucleic acid encoding mgNIS, and expression of mgNIS in the breast tissue is indicative of the presence of breast cancer in the subject, and no expression of mgNIS in the breast tissue is indicative of the absence of breast cancer in the subject.--

A marked up version of the pending claims showing the changes made is attached hereto.

#### Remarks

Claims 1, 2, 4-9, and 29 were pending in the subject application. By this Amendment, applicants have canceled claims 4, 5, and 7 without prejudice or disclaimer, amended claims 1, 6, 8, 9, and 29, and added new claim 30. Accordingly, upon entry of this Amendment, claims 1, 2, 6, 8, 9, 29, and 30 will be pending and under consideration.

Applicants maintain that the amendments to claims 1, 6, 8, 9, and 29 and the addition of new claim 30 raise no issue of new matter. Claims 6, 8, 9, and 29 have been amended to change claim dependencies. Support for the amendments to claim 1 may be found *inter alia* in the application as originally filed on page 8, line 25 through page 10, line